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ABSTRACT

Imaging is the process of creating mental pictures that can be scanned as people would scan a current event. It is a real, powerful personal process, which has been used in medicine, science, health care, sports, creativity, education, and other areas. On a day-to-day level, imaging can be used to engineer insights regarding self-concept, interaction with others, and resolving interpersonal conflicts. Imaging enables people to uncover and experience diverse ways of using their minds to gather and process data that can lead to powerful and useful new forms of knowing and behaving. (Author/DF)

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IMAGING:

INSIGHT ENGINEERING

by

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Abstract

Imaging is the process of creating material pictures in our mind which can be scanned as people would scan a real current event in their environment. It is a real, powerful, personal process. It has been used in medicine, science, health care, sports, creativity, education, and other areas. On a day-to-day level, we can use imaging to engineer our insights regarding the self-concept, interaction with others, and to resolve interpersonal conflicts. Imaging enables people to uncover and experience vast and diverse ways of using their minds to gather and process data that can lead to powerful and useful new forms of knowing and behaving.

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Running Head: Imaging

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ABOUT THE AUTHORS

Richard L. Weaver, II, is a professor and Howard W. Cotrell is an associate professor at Bowling Green State University, Bowling Green, Ohio 43403. Dr. Weaver is director of the basic speech-communication program, and Mr. Cotrell is assistant director of the Instructional Media Center. (45 words)

Martha was shy and non-assertive with most others. She was unhappy with this self-image. She wanted to be more outgoing and assertive. Martha broke her desired image down into manageable parts. For her, the easiest part to accomplish was just saying what was on her mind rather than repressing her ideas when with friends. This was a safe place for her to begin building toward her desired image. Her next step was to share her feelings about ideas expressed by others. Once she felt comfortable doing this with friends, her next step was to start doing it with small groups of others. Slowly, systematically, and incrementally, she began to build a self-image with which she was happy.

Mark was very ego-centered. He found it difficult to listen to others. Not only did he not want to take the time to listen, he felt others' problems and concerns were unimportant, insignificant, and uninteresting. His image of others conformed to his feelings about their problems. Once familiar with the process of imaging, Mark was able to write a new script. He created visualizations of having satisfying experiences with others. When using these scripts in actual conversations, Mark found himself discovering more about himself. He found that reaching out to others not only allowed him better relationships, but the side effects of reaching out, too, provided rich, personal rewards such as finding out more about himself. Through imaging, Mark became a better listener.

Sandy had a conflict with her landlord. She was moving to a new apartment. An inspection was completed of her current apartment, but despite

finding no damage, the landlord was unwilling to give back her deposit. Sandy used imaging to build a series of possible confrontation scenarios. She even labelled them one, two, and three for identification purposes. In her first imaging scenario, the landlord wrote out a check upon Sandy's initial, in-person request for the money. In the second, the landlord said, "Upon your actual, physical departure from the premises, a check will be written and mailed." In the third, the landlord provided reasons for not giving back the money, and Sandy imaged responses to each of his reasons.

For each scenario, Sandy would provide the full dialogue (both sides). Finally, in her actual meeting with the landlord, the situation was less tense than she expected, and Sandy received her money. But she was poised, prepared, and self-confident because she had imaged various protocol scenarios. She felt she knew how she would respond no matter what happened.

Martha, Mark, and Sandy used imaging to help solve day-to-day interpersonal problems. According to Akhter Ahsen, imaging is the process of creating material pictures in the mind which can be scanned as people would scan real current events in their environment (1, p. 5). In other words, imaging is personal; it is highly idiosyncratic. It is real to the person imaging; it has the same "realness" as actual events in the environment. And it is powerful; what our minds can image can be utilized as a potent force. Imaging is being used in medicine, science, health care, sports, creativity, and in education. And we can use it in our daily lives as well.

Dr. Kenneth Pelletier of the University of California Medical School at San Francisco, described for Daniel Goleman a recent study in which asthmatics were treated with a visualization therapy modeled on a Tibetan technique in which the person, in his imagination, "travels through his body as a point of light, like a miner in a cave" (8).

In the study, the asthmatic patients were taught to tour the troubled cells involved in their respiratory problems. A group of patients who used the technique needed less asthma medication and had improved respiration compared with patients who did not use the visualization method (8).

Signe Hammer, in "The Mind as Healer," tells of Anna who, because of a malignant tumor on the back of her neck, was given three months to live. Patricia Norris, clinical director of the Biofeedback and Psychophysiology Center at the Meninger Foundation, taught Anna how to image the tumor as a dragon on her back. Anna saw her white blood cells as knights attacking the tumor with swords. Within a year, the tumor had shrunk; and with continued imaging, the next time Norris saw Anna, she was in total remission (9).

It has had some use in science as well. In her report on imaging, Beverly-Colleene Galyean stated that the German chemist Kekule discovered the molecular structure of benzene while imaging a snake swallowing its tail. Einstein resolved complex mathematical and physical problems through his ability to perceive, feel, and interpret inner images. Also, she said that the French mathematician Poincare solved complex mathematical problems in moments of visual reverie (7). Cooper and Shepard have shown how images can be measured and investigated scientifically (6).

In the area of health care, Vissing and Burke exposed health care workers to visualization through a medical sociology class in which they enrolled in Lansing, Michigan. Those participating supported its use as an aid to problem solving and the achievement of relaxation. In health care, it has potential use in easing the interpersonal conflicts that often exist in hospital settings between health care workers, to help in the interactions between health care worker and patient, and when taught to patients, to help them gain better control over their response to illness (19).

Imaging has been used in sports, too. As reported in Science Digest, Marlin Mackenzie, head of the sports-counselor training program at Columbia University Teachers College, helps athletes break mental barriers by having them use positive mental images. When a young pole-vaulter with a problem was told not to think about jumping but about the sound of his pole hitting the ground as the first note of a love song, the strategy had almost immediate positive effects (3).

Imaging, too, has been used to stimulate creativity. In "Imagination to Go," Berkeley Rice described an approach to creativity offered by the Center for Creative Leadership, a private research and training institute in Greensboro, North Carolina. The program he described encouraged participants "to see all the different ways one can think about something," to use analogies to human problems from the world of animals or social insects, and to use "excursion techniques" such as free association and guided fantasy--all imaging methods (14).

Educators are using imaging as well. In elementary and secondary schools, Galyean describes courses where it is used to develop thinking skills and accelerate mastery of cognitive material, as a tool for awareness and acceptance of self and others, and to promote transpersonal awareness and growth. Transpersonal means awareness and growth beyond the ordinary physical-emotional way of viewing oneself and world. That is, it means recognizing as valid, mystical, psychic, and spiritual dimensions as well (7).

Educators have used imaging, too, to facilitate decision making, clarify values, memorize, incorporate behavioral outcomes of teaching, and to reinforce cognitive concepts. Glenn Richardson and Melody Powers Noland are instructors who direct the process by describing the scenarios that the

students image. According to Richardson and Noland, students handle these images as clearly as they use the senses of seeing, hearing, touching, smelling, and tasting (15).

In higher education we have shown how imaging has the potential for increasing self-concept and lecturing effectiveness (22). We have also shown how imaging can enhance course content (21). Instructors can encourage imaging in students through the use of examples and illustrations, instructional aids, trigger words, exercises and activities, daydreams and fantasies, as well as direct, specific imaging instructions. Such methods increase interest, assure learning and involvement, and excite creativity (21).

Imaging is not new, but it has been rediscovered. One author calls it a "renaissance in interest" (10). Samuels and Samuels show how historians, religious scholars, anthropologists, physicians, and psychologists have begun to study imaging as it pertains to their areas of specialization (16). Adelaid Bry adds to this list psychotherapists, athletes, dieters, artists, business people, and lovers (4).

IT IS USED DAILY

Imaging is not a strange, mystical phenomenon. It is something done routinely, often without thinking about it. For example, when Sheriff Johnny France went after Don and Dan Nichols, who had eluded lawmen in the remote Montana wilderness near Bozeman,* he admitted that imaging had taken place. Following the capture, he said, "I had rehearsed this capture for a long time. I had dreamed of it, and everything I did was just as if I'd been there before" (5).

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* Don (53) and Dan (2) were wanted for the July, 1984, kidnapping of Kari Swenson, a member of the U.S. biathlon team, and for the murder of a man who helped rescue her.

Another example of daily use involves stereotyping. For example, what comes to mind when the word "Soviets" is mentioned? Robert Moyer contends that the internal threat from the Soviet Union may be as important as the external threat (12). In this excerpt, note the potency Moyer gives to the process of imaging:

> With a firmly held idea of the enemy as evil, people tend to remember evidence that confirms the image and ignore evidence that might contradict it (12, p. 33).

To illustrate the daily use of imaging in your own life, think about what you do before going in to see your boss. You create an image of the interaction. Have you ever mapped out an entire strategy for a date, an interview, or a meeting? These are clear, vivid, and, often, specific pictures that we form that often guide our behavior when actually in the setting.

IMAGING CAN BE CONTROLLED

Imaging occurs in our minds, and it can be controlled. Bry says that imaging is an act of conscious and deliberate creating (4). What are we creating? Reality. Although there is a physical reality out there, our impression of that physical reality is what counts. Notice how important this can be. In the area of speech communication, for example, most instruction is governed by a model of communication labelled "communication as transaction" (2). The model is based on the premise that when people communicate, they create an image of the other person with whom the communicate. That is, although there is a physical person standing next to them, they communicate with their own, created impression of that physical person. People create their own reality. We can never fully know that other person except as we fill in the details in any way we want. If we like the other person, the details

are usually favorable; if we do not, they are not. If we are interested in a sexual relationship, we may even fill in details that cause an emotional and physiological response in us.

The idea of creating our own reality is similar to Paul Watzlawick's concept of "reframing" (20). It is based on the idea that, because reality is arbitrary, anyone can choose the way they interpret or frame an experience. It involves changing our conceptual and emotional viewpoint of a situation. Once changed, although the facts remain the same, the whole meaning of the situation changes. Bry reports that one couple with a sexual problem allowed themselves to enter the other person's body through imaging. They saw and felt how it was to make love as the other person. This different perspective allowed them to free themselves from the feelings of being "used" by each other and allowed them to reframe their lovemaking as mutual pleasure. It is a little like choosing to reprogram a computer that had been previously programmed incorrectly (4).

USING IMAGING POSITIVELY

On a day-to-day level, we can use imaging to engineer (control) our insights. When we have gained control, we can use these insights to enhance our self-concept, increase our ability to interact with others in the areas of empathy, listening, and feedback, and help us resolve interpersonal conflicts.

Enhance Your Self-Concept. Negative images tend to be revealed in negative ways; positive images are revealed in positive ways. Thus, it is important--especially with respect to building a positive self-concept--to focus on clear, specific, real, positive images. For example, if you are sad or depressed, you can image yourself being happy. But it would be far

better to break the image down, list all the elements that relate to the perception of that image by others, then slowly, systematically, and incrementally build (grow) toward that generic image of yourself being happy. The positive will push out the negative.

We have labelled this process "systematic sensitization," but it is part of a larger approach to self-concept enhancement (22). We encourage students to become aware of their biggest problems. We share these anonymously with classes. They label the one with which they have the greatest difficulty. We have them prepare a sequence that moves them toward problem-resolution. They must next take action on their sequence. We call this "dynamation"--action and problem solving (22). Finally, we encourage them to reward themselves as they accomplish the various steps in their sequence. Using this process, students have learned how to deal with worry, express their thoughts and feelings to others, subdue their possessiveness, increase their self-confidence, overcome their inferiority, control their anger, reduce their tendency to be emotional, keep their jealousy in check, become less defensive, become less self-conscious, develop motivation and optimism, overcome poor study habits, and conquer procrastination. One five-step sequence for becoming more confident looked like this:

1. Stop cutting myself and all that I do down.
2. Act on the things I think about doing.
3. Be proud of my accomplishments.
4. Make the best of all my time.
5. Always have something constructive to do.

For most people, when their self-images improve, so will other important aspects of their lives. Galyean explains what happened when students changed to positive self-images:

> Once students have changed negative learning images to "can do" images, school work improves as well as athletic ability, relationships with family and friends, and a variety of other psycho-physical skills (7, p. 55).

Thus, changing self-images can have valuable, related effects. In most cases, improved self-concepts improve our relationships with others. We have found that students who are trying to make significant changes in their lives develop a better outlook on life, even if they have not achieved the final, positive results they desire.

Empathy, Listening, and Feedback Can Be Improved. These are essential interpersonal skills. Those who have difficulty with these skills are likely to have difficulty in their interpersonal relationships. If people can image specific others, and then image a specific scene slowly and deliberately, while letting the events and characters take on a life of their own, they can picture themselves taking the time, showing concern, and providing the appropriate responses.

We have students develop specific scenes in writing. If the characters are well-defined, and the scene is carefully determined, volunteers can be asked to role-play the scenes. Sometimes we do this with whole classes at the same time. After five or six minutes we reverse the roles. This encourages students to both feel and see the scene from the other's perspective. From their reports, role playing can be one means for underscoring the importance of empathy, listening, and feedback.

If empathy, listening, and feedback are important to you, and if the picture of an empathic listener and responder is one that appeals, allow the image you want to work on your mind. Move your eyes over the image and let

it become vivid and clear. Paul Thomas, in an article on "Psychofeedback," says that by using this procedure, people can achieve success in any area, whether it is financial, career-oriented, personal, or spiritual. And the efficiency with which these goals are achieved, depends, he says, on the efficiency with which imaging is used. Change must begin from within ourselves (18).

Managing Conflicts and Resolving Problems. With respect to conflict management and problem solving, Hobart Mowrer says that imaging offers a preparatory set and allows response readiness (11). Once again, if the imager can construct a realistic, specific situation in which the people, context, and messages are rich with detail and exactness, the imaging process is more likely to work. Imagine a white frame and within that white frame, picture the problem as solved. Then, if they can use a different frame--or several different frames--for the same picture, and visualize positive outcomes to the conflict or to the problems, Mowrer says people can enter the actual situation--in the real world--in such a way that their sensory receptors are maximally ready to receive a positive stimulus (11). Paivio, Sheikh and Panagiotou, and Zikmund--all researchers on imaging--have shown that images effect both affective and physiological changes; thus, the idea of sensory receptiveness can be a potent force in gaining response readiness. That was how Sandy was able to successfully confront her landlord (13, 17, 23).

When used for resolving conflicts in educational settings, Galyean asks students to picture someone with whom they are, or could be, in conflict. They image themselves having a conversation with this person as if he or she is a best friend. They are told to experience love and care for this person, and even to see themselves as understanding this person's needs and ideas.

Next, they are asked to picture both their own and the other's words and ideas meeting symbolically in the space between them. They watch as the words and ideas intermingle until they become one. These transformed words and ideas return to each person and the students picture the situation as resolved. Imaging enables people to uncover and experience vast and diverse ways of using their minds to gather and process data that can lead to powerful, useful, and new forms of knowing and behaving (7).

SUMMARY

Understanding imaging allows us to engineer our own, personal insights. Also, it is a mechanism for helping us to reframe our interactions with others in a positive way. Using the skills of imaging can open up vast new reserves of information. But if the images are not converted into action, imaging serves little practical purpose. Dynamation, or action and problem-solving, makes imaging productive and worthwhile. It is through dynamation the people apply the images created in their mind to their physical behavior. It is the self in action. It allows the information of our mind to guide and direct our growth and our relationships with others.

Because imaging is a natural, comfortable, everyday process, it is something everyone can do. We already do it. Basically then, it involves gaining control of the images. Once in control, insights can be engineered to improve the self-concept, acquire greater empathy, develop listening habits, and offer feedback. It can be used, too, in resolving conflicts and finding solutions to problems. Imaging provides a positive form of growth and relationship enhancement through insight engineering.

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